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Applicant(s):	Gideon Schreiber	Docket No:	05558.0018.PCUS00
App. No.:	10/500,521	Art Unit:	1633
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Int. Filing Date:	June 28, 2005	Title:	IFNAR2 MUTANTS, THEIR PRODUCTION AND USE

RESPONSE TO OFFICE COMMUNICATION OF MAY 16, 2006

Dear Sir:

This is in response to the Office Communication mailed on 16 May 2006, which stated that the Applicant's response filed on 21 March 2006 is not fully responsive to the Office Action of 21 November 2006. The Applicant respectfully requests entry of the following amendments and consideration of the remarks filed on 21 March 2006.

Amendments To The Claims

1. - 61. (canceled)

62. (Currently Amended) An isolated IFNAR2 polypeptide, wherein said polypeptide is mutated at amino acid residues histidine 78 and asparagine 100 of the extracellular domain, and wherein said mutation synergistically increase the affinity for IFN-β compared to the wild type polypeptide, and wherein said polypeptide is characterized by the following:

(a) histidine 78 is substituted by alanine; and

(b) asparagine 100 is substituted by alanine~~, aspartic acid or histidine~~.

63-65. (Canceled.)

66. (currently amended) The polypeptide of claim 62, wherein the polypeptide comprises a sequence selected from the group consisting of SEQ ID NO~~S~~: 2~~, 3 and 4~~.

67. (previously presented) The polypeptide of claim 62, wherein the affinity to IFN-β is at least 30 pM.

68. (previously presented) The polypeptide of claim 62, wherein the affinity to IFN-β is at least 25 to 100-fold higher than the affinity of the wild type polypeptide.

69. (previously presented) The polypeptide of claim 62, wherein the polypeptide comprises the extracellular domain.

70. (previously presented) The polypeptide of claim 62, wherein the polypeptide is covalently bound to IFN.

71. (previously presented) The polypeptide of claim 70, wherein the IFN is IFN-β.

72. - 74. (canceled)

75. (previously amended) The polypeptide according to any one of claims 62-71wherein the polypeptide is a fusion protein of IFNAR2.

76. (previously presented) A DNA encoding the polypeptide of claim 62.

77. (previously presented) The DNA of claim 76, wherein the polypeptide comprises a signal peptide sequence.

78. (previously presented) The DNA of claim 77, wherein the signal peptide sequence is that of human growth hormone.

79. (previously presented) A vector comprising the DNA according to any one of claims 76-78, wherein the vector is capable of expressing the polypeptide in a prokaryotic host cell or eukaryotic host cell.

80. (previously presented) A host cell comprising the vector of claim 79.

81. (previously presented) A method of producing an IFNAR2 mutant polypeptide comprising:

(a) cultivating the cell of claim 80 under conditions that cause the expression of the polypeptide; and

(b) isolating the polypeptide.

82. (previously presented) A composition comprising the polypeptide of claim 62 and optionally an IFN antagonist.

83. (previously presented) A method of treating a condition associated with modulation of IFN comprising administering to a patient in need thereof a therapeutically effective amount of the composition of claim 82, wherein the condition is selected from the group consisting of cancer, autoimmune disease and viral disease.

84. (withdrawn) The method of claim 83, wherein the cancer is selected from the group consisting of hairy cell leukemia, Kaposi's sarcoma, multiple myeloma, chronic myelogenous leukemia, non-Hodgkins's lymphoma and melanoma

85. (previously presented) The method of claim 83, wherein the autoimmune disease is selected from the group consisting of multiple sclerosis, rheumatoid arthritis, myasthenia gravis, diabetes, lupus and ulcerative colitis.

86. (withdrawn) The method of claim 83, wherein the viral disease is selected from the group consisting of chronic granulomatous disease, condyloma acuminatum, juvenile laryngeal papillomatosis, hepatitis A, hepatitis B and hepatitis C.

Remarks

The foregoing amendments were made to limit the claims to the elected species, *i.e.*, wherein histidine 78 of IFNAR2 is substituted with alanine and asparagine 100 is substituted with alanine.

The Applicants respectfully reiterate the patentability arguments set out in Applicants' response of 21 March 2006 with respect to the elected species.

Conclusion

The Applicant submits that the pending claims are in condition for allowance and early notification thereof is earnestly solicited.

Respectfully submitted,

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